

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte NORIO YOKOTA, NICHITAKA SATO, KATSUJI MUKAI,
TOSHIYUKI ISHINOHACHI, HIDEHO HAYASHI, ISAO HASHIMOTO,
MIKIO MURAO, SHOZO KANAMORI, CHIKANORI KUMAGAI
and TATSUYA WATANABE

Appeal No. 98-1563
Application No. 08/469,198¹

ON BRIEF

Before COHEN, STAAB, and NASE, Administrative Patent Judges.
NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the refusal of the examiner to allow claims 39 and 52, as amended subsequent to the final rejection. Claims 40 through 51 and 53, the only other claims

¹ Application for patent filed June 6, 1995. According to the appellants, the application is a continuation of Application No. 08/174,693, filed December 27, 1993, now U.S. Patent No. 5,478,234.

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pending in this application, have been withdrawn from
consideration under
37 CFR § 1.142(b) as being drawn to a nonelected invention.

We REVERSE.

BACKGROUND

The appellants' invention relates to an apparatus for manufacturing cement clinker. An understanding of the invention can be derived from a reading of exemplary claim 39, which appears in the appendix to the appellants' brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Yokota et al. (Yokota)	5,478,234	Dec. 26, 1995
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Sukuki et al. (Sukuki)	63-60134 ² (Japan)	Mar. 16, 1988
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Claims 39 and 52 stand rejected under the judicially created doctrine of double patenting over claims 1-21 of Yokota.

Claims 39 and 52 stand rejected under 35 U.S.C. § 112, first and second paragraphs, as the claimed invention is not described in such full, clear, concise and exact terms as to

² In determining the teachings of Sukuki, we will rely on the translation provided by the PTO. A copy of the translation is attached for the appellants' convenience.

enable any person skilled in the art to make and use the same, and/or for failing to particularly point out and distinctly claim the subject matter which the appellants regard as the invention.³

Claims 39 and 52 stand rejected under 35 U.S.C. § 103 as being unpatentable over Yokota⁴.

Claims 39 and 52 stand rejected under 35 U.S.C. § 103 as being unpatentable over Yokota⁵ in view of Sukuki.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 19, mailed September 16, 1997) for the examiner's complete reasoning in support of the rejections, and to the appellants'

³ Since this rejection presents issues under the first and second paragraphs of § 112, we will separately treat those issues in the opinion below.

⁴ The examiner relies on the admitted prior art shown in Figures 33-38 of Yokota.

⁵ Id.

brief (Paper No. 18, filed June 9, 1997) and reply brief (Paper No. 20, filed November 12, 1997) for the appellants' arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

The double patenting rejection

We will not sustain the rejection of claims 39 and 52 under the judicially created doctrine of double patenting over claims 1-21 of Yokota.

In this rejection of claims 39 and 52, the examiner stated (answer, pp. 5-6) that

[t]he subject matter claimed in the instant continuation application is fully disclosed in the referenced copending application, now U.S. Pat. 5,478,234 and is covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: the scope of the present broadened application claims 39, 52 is covered by the allowed claims in U.S. Pat. 5,478,234. Furthermore, there is no apparent reason why applicant would be [sic, was] prevented from presenting claims corresponding to those of the instant application in the other Copending application. *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804. A terminal disclaimer may overcome this rejection but the appellants have not and would not provide one.

The appellants' argue (brief, pp. 6-8 and reply brief, pp. 1-3) that this rejection is prohibited by 35 U.S.C. § 121. We agree.

35 U.S.C. § 121 provides:

If two or more independent and distinct inventions are claimed in one application, the Commissioner may require the application to be restricted to one of the inventions. If the other invention is made the subject of a divisional application which complies with the requirements of section 120 of this title it shall be entitled to the benefit of the filing date of the original application. A patent issuing on an application with respect to which a requirement for restriction under this section has been made, or on an application filed as a result of such a requirement, shall not be used as a reference either in the Patent and Trademark Office or in the courts against a divisional application or against

the original application or any patent issued on either of them, if the divisional application is filed before the issuance of the patent on the other application.

A review of the record in the parent application (i.e., Application No. 08/174,693, filed December 27, 1993, now U.S. Patent No. 5,478,234) reveals the following facts:

1. An Election/Restriction requirement (Paper No. 5) was mailed on March 14, 1994. In that action, the appellants were required to elect a single disclosed species from the embodiments of Figures 2, 3, 4, 5 and 26.

2. The appellants filed a response (Paper No. 6) on April 11, 1994. In that response, the appellants elected Figure 3 with traverse and noted that claims 1-4 and 7-29 correspond thereto.

3. In the succeeding Office actions (Paper Nos. 7 and 10), the examiner held claims 5⁶ and 6 withdrawn from consideration.

4. On June 5, 1995, the appellants submitted an amendment after final (Paper No. 14) which canceled claims 5 and 6 and

⁶ Claim 5 added the limitation that the sintering furnace is a rotary kiln to parent claim 4.

amended the remaining claims to place the case in condition for allowance as indicated in the Notice of Allowability (Paper No. 15).

5. On December 26, 1995 Application No. 08/174,693 issued as U.S. Patent No. 5,478,234.

A review of the record in this application reveals the following facts:

1. This application was filed pursuant to 37 CFR § 1.60 on June 6, 1995.

2. This application claims that it is "a continuation of patent application serial no. 08/174,693, filed December 27, 1993."

3. Appealed claims 39 and 52 include the recitation that the sintering unit comprises a rotary kiln and thus are drawn to the species shown in Figure 2.

From the above facts we conclude the following:

1. This application complies with the requirements of 35 U.S.C. § 120 and is entitled to the benefit of the filing date of the original application.

2. The claims on appeal in this application are drawn to the species of Figure 2, which was a species not elected in the election/restriction requirement made in the parent application.

3. The patent issuing on an application with respect to which a requirement for restriction has been made (i.e., U.S. Patent No. 5,478,234) cannot be used as a reference against a divisional application, if the divisional application is filed before the issuance of the patent on the other application.

While the appellants have designated this application to be a continuation application, this does not alter the fact that this application could be and should be designated to be a divisional application.⁷ Thus, we conclude under the facts

⁷ The appellants should consider amending the designation of this application from being a continuation application to being a divisional application.

of this case that this rejection is prohibited by 35 U.S.C. § 121.

For the reasons stated above, the decision of the examiner to reject claims 39 and 52 under the judicially created doctrine of double patenting over claims 1-21 of Yokota is reversed.

The 35 U.S.C. § 112 rejection

We will not sustain the rejection of claims 39 and 52 under 35 U.S.C. § 112, first and second paragraphs.

In this rejection of claims 39 and 52, the examiner stated (answer, pp. 6-7) that

the claimed invention is not described in such full, clear, concise and exact terms as to enable any person skilled in the art to make and use the same, and/or for failing to particularly point out and distinctly claim the subject matter which the appellants regard as the invention. The claims are not supported by the disclosure. Applicants have failed to illustrate and disclose the specific controls for the claimed temperature range "1300 to 1400° C" and the combustion control for heating and maintaining rate of "at least 100° C/minute" from the specification. Without knowing the specific controls, the claimed invention is not adequately supported by the disclosure. In claim 52,

there is no disclosure directed to a "heating rate is up to 200° C/minute". The appellants must disclose and illustrate how and what to control the claimed velocity of heating "up to 200° C/minute".

It is our view, that the above-noted rejection holds that claims 39 and 52 fail to comply with both the description and enablement requirements of the first paragraph of 35 U.S.C. § 112⁸ and the definiteness requirement of the second paragraph of 35 U.S.C. § 112. Accordingly, we will treat each of these requirements separately below.

The definiteness requirement

Claims are considered to be definite, as required by the second paragraph of 35 U.S.C. § 112, when they define the metes and bounds of a claimed invention with a reasonable degree of precision and particularity. See In re Venezia, 530 F.2d 956, 958, 189 USPQ 149, 151 (CCPA 1976). In making this determination, the definiteness of the language employed in the claims must be analyzed, not in a vacuum, but always in

⁸ It is well settled that the description and enablement requirements are separate and distinct from one another and have different tests. See In re Wilder, 736 F.2d 1516, 1520, 222 USPQ 369, 372 (Fed. Cir. 1984).

light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art. In re Johnson, 558 F.2d 1008, 1015, 194 USPQ 187, 193 (CCPA 1977).

In this case, we have reviewed the examiner's rejection set forth above and fail to understand in what respect the examiner believes claims 39 and 52 fail to define the metes and bounds of the claimed invention with a reasonable degree of precision and particularity. From our perspective, the metes and bounds of claims 39 and 52 would be understood by one skilled in the art. Accordingly, claims 39 and 52 are considered to be definite, as required by the second paragraph of 35 U.S.C. § 112.

The written description requirement

The test for determining compliance with the written description requirement is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession at that time of the

later claimed subject matter, rather than the presence or absence of literal support in the specification for the claim language. See Vas-Cath, Inc. v. Mahurkar, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1116-17 (Fed. Cir. 1991) and In re Kaslow, 707 F.2d 1366, 1375, 217 USPQ 1089, 1096 (Fed. Cir. 1983).

The claimed sintering reaction temperature range "1300°C to 1400°C" finds written description support on page 42, lines 1-13. The claimed heating rate of "at least 100C°/minute [sic, 100°C/minute]" finds written description support in original claim 2. The claimed heating rate of "up to 200C°/minute [sic, 200°C/minute]" finds written description support on page 43, lines 16-18.⁹ Accordingly, claims 39 and 52 are considered to comply with the written description requirement of the first paragraph of 35 U.S.C. § 112.

⁹ The claimed heating rate of "up to 200C°/minute [sic, 200°C/minute]" recited in dependent claim 52 must be considered with the claimed heating rate of "at least 100C°/minute [sic, 100°C/minute]" recited in claim 39. When these two limitations are considered together, claim 52 is in fact reciting a heating range of at least 100°C/minute up to 200°C/minute.

The enablement requirement

An analysis of whether the claims under appeal are supported by an enabling disclosure requires a determination of whether that disclosure contained sufficient information regarding the subject matter of the appealed claims as to enable one skilled in the pertinent art to make and use the claimed invention. The test for enablement is whether one skilled in the art could make and use the claimed invention from the disclosure coupled with information known in the art without undue experimentation. See United States v. Telectronics, Inc., 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988), cert. denied, 109 S.Ct. 1954 (1989); In re Stephens, 529 F.2d 1343, 1345, 188 USPQ 659, 661 (CCPA 1976).

In order to make a rejection, the examiner has the initial burden to establish a reasonable basis to question the enablement provided for the claimed invention. See In re Wright, 999 F.2d 1557, 1561-62, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993) (examiner must provide a reasonable explanation as to why the scope of protection provided by a claim is not adequately enabled by the disclosure). A disclosure which

contains a teaching of the manner and process of making and using an invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as being in compliance with the enablement requirement of

35 U.S.C. § 112, first paragraph, unless there is a reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support. Assuming that sufficient reason for such doubt exists, a rejection for failure to teach how to make and/or use will be proper on that basis. See In re Marzocchi, 439 F.2d 220, 223, 169 USPQ 367, 369 (CCPA 1971). As stated by the court, "it is incumbent upon the Patent Office, whenever a rejection on this basis is made, to explain why it doubts the truth or accuracy of any statement in a supporting disclosure and to back up assertions of its own with acceptable evidence or reasoning which is inconsistent with the contested statement. Otherwise, there would be no need for the applicant to go to the trouble and expense of supporting his presumptively accurate disclosure." In re Marzocchi, 439 F.2d at 224, 169 USPQ at 370.

Thus, the dispositive issue is whether the appellants' disclosure, considering the level of ordinary skill in the art as of the date of the appellants' application, would have enabled a person of such skill to make and use the appellants' invention without undue experimentation. The threshold step in resolving this issue as set forth supra is to determine whether the examiner has met his burden of proof by advancing acceptable reasoning inconsistent with enablement. This the examiner has not done. The mere fact that the appellants have not disclosed the specific controls for achieving the claimed heating rate and sintering reaction temperature does not, ipso facto, make the disclosure nonenabling. In fact, we agree with the appellants argument (brief, pp. 8-11) that claims 39 and 52 are enabled since a skilled artisan could have easily provided and adjusted controls in a jet fluidized bed furnace to provide the claimed temperature and heating rate. Accordingly, claims 39 and 52 are considered to comply with the enablement requirement of the first paragraph of 35 U.S.C. § 112.

The obviousness rejections

We will not sustain the rejections of claims 39 and 52 under 35 U.S.C. § 103.

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of obviousness is established by presenting evidence that the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the references before him to make the proposed combination or other modification. See In re Lintner, 9 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972). Furthermore, the conclusion that the claimed subject matter is prima facie obvious must be supported by evidence, as shown by some objective teaching in the prior art or by knowledge generally available to one of ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

With this as background, we analyze the prior art applied by the examiner in the rejection of the claims on appeal.

Yokota illustrates in Figure 33 a conventional cement clinker manufacturing apparatus. That apparatus includes a pre-heating unit 1, a pre-calcining unit 2, a sintering unit comprising a rotary kiln 3, and a cooling unit 4.

Yokota illustrates in Figures 34-38 a conventional sintering apparatus, a conventional granulating furnace, and conventional raw material injection apparatus together with a fluidized bed furnace. The apparatus shown in Figure 38 includes a sintering fluidized bed furnace 573, a granulating furnace 561 and cyclones 563 and 571.

Sukuki discloses a cement clinker manufacturing apparatus. As shown in Figure 1, the cement clinker manufacturing apparatus includes a spouted bed granulating furnace 1, a fluidized bed burning furnace 2, cooler 10, and a suspension preheater 3.

After the scope and content of the prior art are determined, the differences between the prior art and the claims at issue are to be ascertained. Graham v. John Deere Co., 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966).

Based on our analysis and review of the conventional cement clinker manufacturing apparatus disclosed by Figure 33 of Yokota and claim 39, it is our opinion that the only difference is the following limitation:

at least one heating furnace comprising a jet fluidized bed furnace for granulating the raw material in which granulated material is charged into said rotary kiln by way of a discharge chute, said jet fluidized bed furnace being arranged intermediate said pre-calcining unit and said rotary kiln, said at least one heating furnace heating the raw material from a pre-heating temperature to a sintering reaction temperature of 1300°C to 1400°C at a heating rate of at least 100°C/minute and maintaining that temperature.

With regard to this difference, the examiner determined (answer, p. 7-8) that it would have been obvious to provide an additional furnace adjacent the pre-calcining unit 2 of Yokota's Figure 33 in order to obtain additional heating as suggested/taught by either Sukuki or Figures 34-38 of Yokota.

The appellants argue (brief, pp. 15-19) that the applied prior art fails to suggest the claimed invention. We agree. Specifically, it is our opinion that there is no objective teaching in the applied prior art or by knowledge generally available to one of ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. In that regard, there is no suggestion in the applied prior art of providing Yokota's Figure 33 with an additional heating furnace "arranged intermediate said pre-calcining unit and said rotary kiln" let alone the specific heating furnace set forth in claim 39. While an artisan **could** have provided a heating furnace intermediate the pre-calcining unit and the rotary kiln, **obvious to try** is not the correct standard for patentability under 35 U.S.C. § 103.

For the reasons stated above, the decision of the examiner to reject claims 39 and 52 under 35 U.S.C. § 103 is reversed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 39 and 52 under the judicially created doctrine of double patenting over claims 1-21 of Yokota is reversed; the decision of the examiner to reject claims 39 and 52 under 35 U.S.C. § 112, first and second paragraphs, is reversed; and the decision of the examiner to reject claims 39 and 52 under 35 U.S.C. § 103 is reversed.

REVERSED

IRWIN CHARLES COHEN)	
Administrative Patent Judge)	
)	
)	
)	
)	BOARD OF PATENT
LAWRENCE J. STAAB)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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JEFFREY V. NASE)	
Administrative Patent Judge)	

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APPEAL NO. 98-1563 - JUDGE NASE
APPLICATION NO. 08/469,198

APJ NASE

APJ STAAB

APJ COHEN

DECISION: **REVERSED**

Prepared By: Gloria Henderson

DRAFT TYPED: 08 Feb 99

FINAL TYPED: